Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	
Reconsideration of the Richardson Order	)	DA 01-2885

REPLY COMMENTS OF VOICESTREAM WIRELESS CORPORATION

VoiceStream Wireless Corporation ("VoiceStream") submits this reply to the comments filed in response to the petitions for reconsideration and clarification of the October 17, 2001 *Richardson Order*.

I. THE COMMISSION SHOULD ADOPT THE PUBLIC SAFETY ORGANIZATION'S TOLLING PROPOSAL

The Public Safety Organizations (APCO, NENA and NASNA) recommend that "the six month [implementation] period continue running upon a carrier request for documentation, unless the PSAP fails to provide the requested documents within a reasonable time frame (e.g., 15 days), after which the six month period will toll."[1] This is a sensible proposal, and VoiceStream urges the Commission to adopt the Public Safety Organization's fifteen-day proposal.

The City of Richardson, in contrast, opposes any such tolling arrangement, claiming that such tolling "is not necessary or appropriate":

[1] Comments of Public Safety Organizations at 4.

> It does not make sense that well-run businesses such as America's wireless carriers would want to spend time and money challenging a request from a governmental entity to look behind the statements that the entity has a funding source, has issued the necessary purchase order, and have [*sic*] made a request to a LEC. It is fair to conclude that a significant reason for carriers to institute such challenges would be to delay providing E911 service . . . .[2]

The City of Richardson fundamentally misunderstands the reason that carriers have routinely asked requesting PSAPs to document their readiness to implement Phase II service, a practice the Commission has now expressly condoned. Implementing Phase II service is a major financial and time-consuming undertaking that is done community-by-community. For most carriers, their Phase II solutions require equipment upgrades and installation of new facilities at the base stations serving the PSAP's service area. As VoiceStream pointed out in its comments,[3] network equipment vendors are beginning to ramp up commercial production of their Phase II products, and the public interest would not be served if network equipment is deployed in an area where a PSAP will not be capable of receiving Phase II service, with the result that the carrier is unable to satisfy the needs of another PSAP that is fully Phase II capable.

Experience to date further confirms that a sizable percentage of PSAPs are slow to respond to carrier requests for information. Only one-third of PSAPs submitting Phase II requests to VoiceStream have responded to its request to verify their Phase II readiness and the readiness of their E911 network.[4]

---

[2] Comments of Richardson at 4 and 9. Richardson's current position is at odds with the one that it advocated only six months ago. *See* Comments of Richardson, CC Docket No. 94-102, at 5 (July 25, 2001)("It is reasonable to require that the PSAPs show that some type of work plan is in place so that the necessary equipment will be installed within six months of the date on which the PSAP makes the request for Phase II service.").

[3] *See* Comments of VoiceStream at 4.

[4] *See id.* at 5. In addition, as VoiceStream previously documented to the Commission, Richardson was unable to implement Phase I service within six months, despite VoiceStream's substantial efforts to facilitate deployment. *See* VoiceStream Response to the City of Richardson, Appendix 1 to VoiceStream Reply Comments, CC Docket No. 94-102 (Aug. 1, 2001). VoiceStream is puzzled by certain allegations made by Richardson directed at VoiceStream's efforts to work constructively with the PSAPs to facilitate E911 service. *See* Comments of Richardson at 7 ("Richardson showed the Commission that carriers had been using their interpretation of Section

In summary, the Commission should adopt the tolling after 15-day proposal made by the national Public Safety Organizations.[5]

II. VOICESTREAM SUPPORTS THE PUBLIC SAFETY ORGANIZATION'S RECOMMENDATION THAT ILECS BE REQUIRED TO PUBLISH THEIR PHASE II CONVERSION SCHEDULE, BUT EMPHASIZES THAT ULTIMATELY CARRIERS NEED CERTAINTY THAT PHASE II UPGRADES WILL TIMELY BE COMPLETED

The Commission has recognized that Phase II service can be supported only with Phase II upgrades to ALI databases.[6] VoiceStream and other wireless carriers have asked the Commission to confirm that PSAPs must be prepared to document that their ALI databases will be upgraded within six months of the PSAP's request.[7] It is pointless for PSAPs and carriers to work under a six-month schedule in situations where such efforts do not result in operational Phase II systems, because needed upgrades to the ALI databases have not been completed.

The Public Safety Organizations state that the provision of LEC upgrades "is largely beyond the control of PSAPs, and requiring each PSAP to obtain documentation of upgrade sched-

---

20.18(j) . . . to make self-serving, arbitrary assessments of a carrier's readiness to deny PSAP requests (as Richardson suffered at the hands of VoiceStream)."). Such allegations do not facilitate the PSAP-carrier "cooperation" that Richardson says is necessary for successful implementation of E911 systems. *See id.* at 4 and 9.

[5] There is no merit to Richardson's further request that the FCC impose "a substantial financial penalty" on carriers that bring what Richardson characterizes as "a losing challenge." *Id.* at 2 and 10. After all, the FCC expressly authorized carriers to seek such documentation as a means of "avoiding delays in implementing E911 service or unnecessary or premature investments due to confusion over the PSAP's preparedness." *Richardson Order,* Appendix C, Final Regulatory Flexibility Analysis.

[6] *See Richardson Order* at ¶ 17 ("[M]igration from an NCAS Phase I solution to Phase II requires an additional upgrade to the ALI database so that it will query the Mobile Positioning Center (MPC) at the appropriate time to acquire the Phase II latitude/longitude data."). Richardson is mistaken in believing that ALI database upgrades are needed only when a PSAP upgrades from Phase I CAS to Phase II NCAS. *See* Comments of Richardson at 3-4 and 11. To receive Phase II service, Phase I CAS and HCAS PSAPs also require ALI databases that contain requisite Phase II upgrades.

[7] *See, e.g.,* Comments of VoiceStream at 2-4. Completely baseless is Richardson's assertion that there is "no indication that all LECs will delay making the upgrade." Comments of Richardson at 4. The *only* record evidence involving ALI database readiness is that two major ILECs, BellSouth and Qwest, will not be upgrading their ALI databases in the foreseeable future. *See* Comments of VoiceStream at 4.

ules may thus be an unnecessary burden."[8] They further state that requiring LECs to publish their Phase II database upgrade schedules is "a far more efficient mechanism for obtaining necessary information regarding upgrades."[9]

In fact, there are numerous instances where one ALI database supports multiple PSAPs. The Public Safety Organizations, therefore, are correct in concluding that it would be more efficient to have LECs publish information already in their possession than to have each PSAP submit redundant requests to the same ILEC. Accordingly, VoiceStream supports the Public Safety Organizations' recommendation on this issue. However, VoiceStream emphasizes that ultimately operators need clear documentation – whether from the ILEC or from the PSAP – that the necessary upgrades will be made within six months of the PSAP's request. Otherwise, as VoiceStream has described previously, operators run the risk that Phase II resources will be deployed in areas where the PSAP is not ready to receive and utilize the data, at the expense of areas where the PSAPs are ready to utilize the data. Tolling of the Phase II request in such circumstances would be in the public interest to prevent such misallocation of Phase II resources.

III. THE AVAILABLITY OF A REFRESH CAPABILITY IS AN ESSENTIAL COMPONENT TO PHASE II SERVICE

VoiceStream and others have demonstrated that, unless a PSAP's E911 network includes a refresh capability, PSAPs frequently will not receive the caller's location information.[10] As VoiceStream has explained, "The complexity of receiving all Phase II data inputs and making the necessary calculations mean that Phase II location information will rarely be available within two seconds, especially with the relatively new location technology involved. Thus, if an ALI

[8] Comments of Public Safety Organizations at 2. Given this position, Verizon's assertion that LEC publication of their upgrade schedules is "unnecessary" rings hallow. Comments of Verizon at 1.

[9] Comments of Public Safety Organizations at 2.

database is incapable of making a subsequent request for the location data (*e.g.,* five seconds after call setup), the PSAP will not receive the location information."[11]

The Public Safety Organizations "acknowledge that the refreshment capability specified in J-STD-036 may be an obvious choice in most instances," but they oppose including this capability in all cases for fear it may "stifle customization or . . . freeze technology."[12] It would appear, however, that a "refresh" capability is required by existing rules, because an E911 network without the capability would be incapable of receiving the Phase II data in many instances,[13] and the Commission has explicitly recognized that ALI databases must be able to "query the Mobile Positioning Centers (MPC) *at the appropriate time* to acquire the Phase II latitude/longitude data."[14] Purchasing and installing a Phase II system that will be incapable of receiving Phase II location data with most wireless calls would not appear to benefit PSAPs, mobile customers, or the taxpayers who have funded the investment. This approach will not "stifle customization or . . . freeze technology," because the carriers and PSAPs can be expected to be open to rational ways to improve service, especially if there were to be cost savings.

The Public Safety Organizations further appear to be frustrated by the current state of technology. They would like the network equipment to work faster than it is currently designed:

> Neither would we want wireless carriers to assume that refreshment capability frees them from their fundamental obligation to deliver <u>in timely fashion</u> the

---

[10] *See, e.g.,* Comments of VoiceStream at 7-8; Sprint PCS Petition at 10-12.

[11] Comments of VoiceStream at 7.

[12] Comments of Public Safety Organizations at 3.

[13] *See* 47 C.F.R. § 20.18(j)("The requirements set forth in . . . this section shall be applicable only if the administrator of the designated PSAP . . . is capable of receiving and utilizing the data elements associated with the service.").

[14] *Richardson Order* at ¶ 17 (emphasis added).

> Phase II location data. Just because a PSAP can ask for the data again does not mean it should have been absent in the first place.[15]

Network operators are not manufacturers and they have no choice but to operate their equipment in the manner to which it has been designed. The manufacturers have tried to speed the location calculation process while maintaining accuracy but this is, after all, new and very sophisticated technology.

Network operators are spending considerable sums in implementing Phase II capabilities in their networks, and their incentive is to provide service that is reliable and efficient. Carriers have no incentive to purchase equipment that is not state-of-the-art, and the public safety community should, in turn, work to incorporate the best available standards into its facilities and equipment that would result in receipt of timely and accurate location information.

IV. THE AVAILABILITY OF E-OTD HANDSET SOFTWARE DOES NOT EXPLAIN WHY E-OTD HANDSETS ARE NOT COMMERCIALLY AVAILABLE TODAY

The City of Richardson would have the Commission believe that E-OTD handsets would be available in the market today if only GSM carriers would have ordered such handsets earlier:

> According to an October 4, 2001 article in Wireless Today . . . Cambridge Positioning Services, the developer of E-OTD, "made its handset software available at no charge in time for vendors to roll out E-OTD-enabled phones well before the Oct. 1 deadline."[16]

At the outset, it should be noted that E-OTD software for GSM handsets is available largely because of the field trials that VoiceStream conducted with Cambridge Positioning Services in Houston.

---

[15] Comments of Public Safety Organizations at 3-4 (emphasis in original).

[16] Comments of Richardson at 8 n.3.

As VoiceStream advised the Commission last month, "[b]efore handsets can be released to the commercial market, they must be tested on operational E-OTD upgraded networks."

> Network trials with pre-production handsets are underway in Washington, D.C. and Seattle/Bellevue, Washington, using development infrastructure equipment. As a minimum test of interoperability, a handset will not be approved for commercial production and release until it has been tested on at least one manufacturer's commercial E-OTD system in the field and another manufacturer's E-OTD system in the lab.[17]

Thus, the delay in the availability of commercial quantities of E-OTD handsets is not due to a lack of GSM carriers placing purchase orders for E-OTD handsets. Rather, the delay is in getting at least one commercial E-OTD network system up and running in the field and in the delivery of equipment for a second system to the test lab – so the handset software can be tested in "live" GSM networks.

VoiceStream uses network equipment from three different manufacturers, and it obtains most of its handsets from three different handset manufacturers. Interoperability testing is critically important and it cannot be safely overlooked or short-circuited. Customers demand reliable and ubiquitous service (*e.g.,* they expect their handset will work when they roam in another market supported by network equipment produced by different manufacturers). Further, the handsets VoiceStream sells to meet the E911 location requirements must be capable of operating safely on GSM networks worldwide. Whether GSM or any other technology, handset manufacturers and network operators always test handsets on "live" networks before introducing them to the public.

[17] VoiceStream Request for Limited Modification of E911 Phase II Implementation Plan, CC Docket No. 94-102, at 14-15 (Dec. 21, 2001).

The important point is that interoperability testing on live GSM networks will begin shortly, and VoiceStream has submitted to the Commission a specific plan whereby Phase II systems using VoiceStream's E-OTD network will be operational before the end of the year.[18]

V. CONCLUSION

For the foregoing reasons, VoiceStream respectfully requests that the Commission modify its *Richardson Order* in the manner discussed above and in VoiceStream's comments.

Respectfully submitted

VoiceStream Wireless Corporation

By: /s/ Brian O'Connor_____
Brian T. O'Connor, Vice President
Legislative and Regulatory Affairs

Robert Calaff, Corporate Counsel
Governmental and Regulatory Affairs

Dan Menser, Corporate Counsel
Regulatory Affairs

401 9th Street, N.W., Suite 550
Washington, D.C. 20004
202-654-5900

January 28, 2002

[18] *See* VoiceStream Request for Limited Modification of E911 Phase II Implementation Plan, CC Docket No. 94-102 (Dec. 21, 2001).